

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE NH-IM-95-1(114)&(130) Camden County OFFICE Preconstruction
P.I. Nos. 511070 & 511072
CWH DATE October 6, 1994
FROM C. Wayne Hutto, Assistant Director of Preconstruction
TO SEE DISTRIBUTION

SUBJECT PROJECT CONCEPT REPORT APPROVAL

Attached for your files is the approval for subject project.

CWH/se

Attachment

DISTRIBUTION:

John Lively
Bob Mustin
David Studstill
Herman Griffin
Toni Dunagan
James Kennerly
Darrell Elwell
Marion Waters
Craig Brack
FHWA



U.S. Department
of Transportation
**Federal Highway
Administration**

Georgia Division Office

1720 Peachtree Road, N.W.
Suite 300
Atlanta, Georgia 30367

August 29, 1994

IN REPLY REFER TO:

HTM-GA

Mr. Wayne Shackelford
Commissioner
Department of Transportation
No. 2 Capitol Square
Atlanta, Georgia 30334

Subject: Georgia Projects NH-IM-95-1(114) (130)
Camden County
Project Concept Report

Dear Mr. Shackelford:

We have completed review of the subject concept report,
transmitted to our office on August 17, 1994, and offer one minor
comment for your consideration.

The report states that an access road will be constructed from
Georgia's Welcome Center to St. Mary's Road. It is our
understanding from previous discussions with your staff that the
access road will be constructed from the welcome center to an
existing local service road at a point just south of St. Mary's
Road. The report is otherwise acceptable and we are returning
the approved original for further processing.

If you have any questions, please contact Floyd Moore at
347-0163.

Sincerely yours,

FAMoore

for Larry R. Dreihaup, P.E.
Division Administrator

Enclosure



**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE NH-IM-95-1(114) & (130) Camden County
P.I. No. 511070 & 511072
OFFICE Preconstruction
DATE August 1, 1994
FROM Hoyt J. Lively, Jr., P.E., Director of Preconstruction
TO Wayne Shackelford, Commissioner
SUBJECT PROJECT CONCEPT REPORT

These combined projects are the widening and reconstruction of I-95 in Camden County from the Florida Line to Harriett's Bluff Road in two phases. The existing roadway consists of 2 lanes in each direction separated by a 64 foot median on approximately one-third of the project and with a split median on the remainder of the project. The existing major structures are: (1) CR 61 overpass - 298' x 42.8' bridge with a suff. rtg. of 90.4; (2) SR 40 - twin 333' x 48.8' bridges with suff. rtg. of 94.4; (3) Colerain overpass - 273' x 28.8' bridge with a suff. rtg. of 74.9; (4) Crooked River - twin 400' x 41' bridges with suff. rtg. of 94.3; (5) Harriett's Bluff overpass - 280' x 43' bridge with a suff. rtg. of 99.8. The posted speed is 65 MPH and the design speed is 70 MPH. The base year traffic (1998) is 51,500 VPD and the design year traffic (2018) is 75,800 VPD.

NH-95-1(114) Camden County (Phase I) consists of widening and reconstruction of I-95 from 2 lanes in each direction to 3 lanes in each direction from the end of St. Mary's River Bridge to Harriett's Bluff overpass for a total of 7.382 miles.

The widening is proposed as follows:

Existing 64' median section south of CR 61

Add one 12' lane and one 12' shoulder (10' paved) to the inside on the northbound side and one 12' lane with 15' - 6" shoulder (12" paved) on the inside southbound.

Existing 64' median section north of CR 61

Add one half lane (6') and 12' shoulders (10' paved) to the inside in one direction and one half lane (6') and 15' - 6" shoulder (12" paved) to the inside in the other direction. Add one and a half lanes (18') to the outside, northbound & and southbound.

Wayne Shackelford

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August 1, 1994

NH-IM-95-1(114) & (130) Camden County

A total of 24' of full depth new pavement will be added to the existing 24' to achieve the ultimate 48' section in each direction. However, I-95 will first function as a 6-lane interstate by utilizing the 3 inside lanes and the newly paved outer 12' (full depth) will function as the Phase I outside shoulder.

Existing split median

Add two - 12' lanes and 12' graded shoulders to the inside northbound and southbound and reconstruct the existing outside 12' shoulder to a 14' shoulder (12' paved). This portion of I-95 will also function initially as a 6 - lane interstate by utilizing the three outside lanes. The newly paved inside 12' will function as the Phase I inside shoulder.

Bridge Construction will be as follows:

1. Widen twin bridges over SR 40 to 333' x 76'
2. Widen twin bridges over Crooked River to 400' x 76'

The existing bridges at Colerain and Harriett's Bluff (overpasses) will be jacked approximately 1'. A design exception will be required for the existing 68 MPH and 58 MPH vertical curves. An access road from Georgia's Welcome Center to a local service road just south of St. Mary's Road will be constructed requiring additional right-of-way. No additional right-of-way is required for the I-95 widening. The existing 24' of CRC will be overlaid with asphalt. The roadway will remain open to traffic during construction.

NH-IM-95-1(130) Camden County (Phase II) consists of widening the roadway from 3 lanes in each direction to 4 lanes in each direction from CR 61 to Harriett's Bluff Road for a total of 6.4 miles.

The widening is proposed as follows:

Existing 52' median section

Construct a 12' paved outside shoulder on the existing Phase I outside graded shoulder, northbound and southbound. Overlay the Phase I outside shoulders with a riding surface and open as the 4th lane, northbound and southbound.

Existing split median section

Wayne Shackelford

Page 3

August 1, 1994

NH-IM-95-1(114) & (130) Camden County

Bridge construction will be as follows:

1. Widen bridge on CR 61 (St. Mary's Road) over I-95 to 326' x 61'

No additional rights-of-way is required for Phase II. The roadway will remain open to traffic during construction.

Environmental concerns for both projects include requiring a Coast Guard permit; a COE 404 permit; a Biological Assessment will be required; a CE will be prepared; a public hearing will not be required; time saving procedures are appropriate.

The estimated costs for this project are:

NH-95-1(114)

	<u>PROPOSED</u>	<u>APPROVED</u>	<u>PROG. DATE</u>
Constr(Infl&E/C)	\$25,797,000	\$17,500,000	1995
Rights-of-way*	LGPA	LGPA	95-03
Utilities	\$150,000	---	

*LGPA sent 6-14-94 requesting St. Mary's be responsible for acquiring R/W for access road relocation.

NH-95-1(130)

	<u>PROPOSED</u>	<u>APPROVED</u>	<u>PROG. DATE</u>
Constr(Infl&E/C)	\$4,565,000	---	LR
Rights-of-way	---	---	
Utilities	LGPA	LGPA	

*Send LGPA when project added to Construction Work Program

Wayne Shackelford

Page 4

August 1, 1994

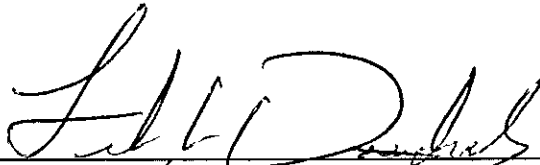
NH-IM-95-1(114) & (130) Camden County

These projects will increase capacity, enhance safety and reduce congestion along this portion of I-95. I recommend these project concepts be approved.

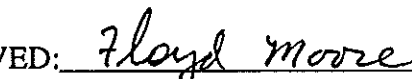
HJL/JDQ/se

Attachment


CONCUR:


Frank Danchetz, P.E., Chief Engineer

APPROVED:


for Larry R. Dreihaup, Division Administrator, FHWA

APPROVED:


Wayne Shackelford, Commissioner

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE NH-IM-95-1(114)&(130) CAMDEN OFFICE Atlanta, Georgia
P. I. No's. 511070 & ~~522072~~
511072 DATE June 13, 1994

FROM Bob Mustin, P.E., Project Review Engineer *DTM*
TO C. Wayne Hutto, Assistant Director of Preconstruction

SUBJECT PROJECT CONCEPT REPORT

The attached concept report has been reviewed and is considered satisfactory.

The estimated costs for this project are as follows:

	UNIT (114)	UNIT (130)
Construction	\$ 22,335,000	\$ 3,488,000
Inflation	\$ 1,117,000	\$ 698,000
E & C	\$ 2,345,000	\$ 419,000
Right of Way	\$ NONE	\$ NONE
Reinburseable Utilities	\$ 150,000	\$ NONE

DTM

Attachments

c: James Kennerly

RECEIVED
JUN 14 1994
PRECONSTRUCTION

Jim 13 JUN 94

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE NH-IM-95-1(114) & (130) Camden Co.
P.I. Nos. 511070, ~~522072~~
511072

OFFICE Atlanta

DATE June 3, 1994

FROM *James Kemmerly*
James Kemmerly, State Road & Airport Design Engineer *AKB*

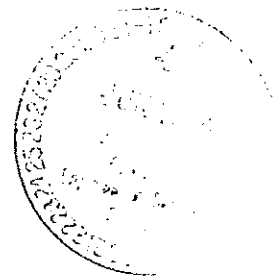
TO Bobby Mustin, Project Review Engineer

SUBJECT Project Concept Report

Attached is project concept report on the above projects. This report is for your review and further handling.

JK:JJG:bc
Attachments

xc: John Lively
David Studstill, w/att
Wayne Hutto, w/att
Marion Waters, w/att
Craig Brack, w/att
Paul Liles, w/att



**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
OFFICE OF ROAD AND AIRPORT DESIGN**

PROJECT CONCEPT REPORT

**NH-IM-95-1(114)
NH-IM-95-1(130)
CAMDEN COUNTY**

FEDERAL ROUTE NO: I-95
STATE ROUTE NO: 405
GADOT P.I. NO: 511070

Date of Report: MAY-31-1994

RECOMMENDATION FOR APPROVAL	
DATE	State Road & Airport Design Engineer
DATE	State Environmental Engineer
DATE	State Traffic Operations Engineer
DATE	District Engineer
DATE	State Bridge Engineer

PROJECT CONCEPT REPORT

PROJECT NUMBER: NH-IM-95-1(114) will be referred to as Phase I and
NH-IM-95-1(130) will be referred to as Phase II.

PROJECT LOCATION & DESCRIPTION

These projects consist of the widening and reconstruction of 7.382 miles of I-95 from the end of St. Mary's river bridge to Harriett's Bluff overpass. Construction is proposed to be done in two phases. Phase I and Phase II are two separate projects. Phase I will widen the roadway from 2 lanes in each direction to three lanes in each direction for the entire length of the project. Phase II will widen the roadway from 3 lanes in each direction to 4 lanes in each direction from CR61 to Harrietts Bluff Road(Approximately 6.4 mile).

A substantial portion of the Phase II construction will be included in the design and construction of Phase I.

Note: About 2.4 miles of the project length has an existing 64' median and about 5 miles of the project length has a split median.

ROADWAY CONSTRUCTION:

The crown point has been shifted to accommodate a 52' median. Referencing the typical may prove helpful.

Phase I - Existing 64' Median Section - South of CR61

Add one 12'-lane and one 12' shoulder(10' paved) to the inside on the northbound side and one 12'-lane and 15'-6" shoulder(12' paved) to the inside southbound.

Phase I - Existing 64' Median Section - North of CR61

Add one half-lane(6') and 12' shoulder(10' paved) to the inside in one direction and one half-lane(6') and 15'-6" shoulder(12' paved) to the inside in the other direction(The appropriate sides for the different inside shoulders will be determined during the plan development stage). Add one and a half lanes(18') to the outside, Northbound and Southbound. A total of 24'(6' + 18') of full depth new pavement is to be added to the existing 24', Northbound and Southbound to achieve the ultimate 48' section in each direction.(The existing 24' of CRC will be overlaid with asphalt). However, as stated in the Project Description, I-95 will first function as a 6-lane interstate. This will be accomplished by utilizing the 3 inside lanes, and the newly paved outer 12' will function as the Phase I outside shoulder. 14' graded shoulders (to be paved under Phase II) will be added to the outside, Northbound and Southbound.

Phase I - Existing Split Median

Add two-12' lanes and 12' graded shoulders to the inside, Northbound and Southbound and reconstruct the existing outside 12' shoulder to a 14' shoulder (12' paved). The existing 24' of CRC will be overlaid with asphalt. Once again, I-95 will first function as a 6-lane interstate. In the Split Median section, this will be accomplished by utilizing the three outside lanes and the newly paved inside 12' will function as the Phase I inside shoulder.
(see comments about crown crossover)

Phase II - Existing 52' Median Section

Construct a 12' paved outside shoulder on the existing Phase I, outside graded shoulder, Northbound and Southbound. Overlay the Phase I outside shoulders with a riding surface and open as the 4th lane, Northbound and Southbound.

- Existing Split Median Section

Construct a 10' paved inside shoulder on the existing Phase I, inside graded shoulder, Northbound and Southbound. Overlay the Phase I inside shoulders with a riding surface and open as the 4th lane, Northbound and Southbound.

The existing roadway varies from a 64' median to a split median and back to a 64' median. Transitions of 3250' and 2460', respectively, will be constructed to accommodate the differences in typicals where the median types change.

BRIDGE CONSTRUCTION:

Phase I: Two mainline bridges.

SR40 - two bridges - widen to 4-12' lanes, 14' shoulders inside and outside, Northbound and Southbound.

Crooked River - two bridges - widen to 4-12' lanes, 14' shoulders inside and outside, Northbound and Southbound.

Two overpasses required jacking.

Colerain and Harriett's Bluff must each be jacked approximately 1'.

Phase II: Overpass Bridge

CR61 (Scrubby Bluff Rd.) - add a 4th lane on the South side of the CR61 overpass bridge to provide a LOS "C" in the design year.

TRAFFIC

CURRENT		PROJECTED	
YEAR	AADT	YEAR	AADT
1998	51500	2018	75800

PDP CLASSIFICATION

FUNCTIONAL CLASSIFICATION

MAJOR EXISTING

INTERSTATE PRINCIPLE ARTERIAL

NON-CA (X)

CA ()

EXEMPT ()

PROJECT NEED & PURPOSE

I-95 is a major transportation corridor serving the eastern seaboard of the United States. It is a major corridor for the movement of goods and people between Florida and the Northeast section of the country. Due to increased traffic on I-95, additional lanes are required to increase capacity, enhance safety and reduce the constant platooning of vehicles on the roadway.

EXISTING ROADWAY

TYPICAL SECTION: 4-Lane rural interstate, 7.38 miles of CRC
R/W width varies from 300' to 500' (total).

POSTED SPEED	MAX DEGREE OF CURVE	MAX GRADE
65 MPH	1.5 DEG.	3.0 %

MAJOR STRUCTURES:

1. CR61 - overpass - 298' x 42.8', SFR 90.4, steel
2. SR40 - twin 333' x 48.8', SFR, 94.4, North & Southbound, steel
3. Colerain - overpass - 273' x 28.8', SFR 74.9, steel
4. Crooked River - twin 400' x 41', SFR 94.3, PSC
5. Harriett's Bluff - overpass - 280' x 43', SFR 99.8, steel

PROPOSED ROADWAY

PHASE I TYPICAL SECTION:

Existing 64' Median - South of CR61
6-lane rural interstate with a 40' median
12' shoulder(10' paved) inside, one direction
15.5' shoulder (12' paved) inside, opposite direction
14' shoulder(12' paved)Northbound and Southbound

Existing 64' Median - North of CR61
6-lane rural interstate with a 52' median
12' shoulder(10' paved) inside, Northbound
15.5' shoulder (12' paved) inside, Southbound
12' paved outside shoulder with additional 14'
outside graded shoulder to be used in Phase II
Northbound and Southbound

Existing Split Median
6-lane rural interstate with variable median
12' paved inside shoulder, with additional 12'
graded shoulder to be used in Phase II,
North & Southbound
14' shoulder(12' paved) outside

PHASE II - TYPICAL SECTION:

Existing 40' Median
All work completed during Phase I

Existing 52' Median
8-lane rural interstate with a 52' median
12' shoulder(10' paved) inside, one direction
15.5' shoulder (12' paved) inside, opposite direction
14' shoulder(12' paved) outside, North & Southbound

Existing Split Median
8-lane rural interstate with variable median
12' shoulder(10' paved) inside, North & Southbound
14' shoulder(12' paved) outside, North & Southbound

DESIGN SPEED	MAX DEGREE OF CURVE;	MAX GRADE;
70 MPH	ALLOWABLE: 3.0 DEG.	ALLOWABLE: 3.0 %
	PROPOSED: 1.5 DEG.	PROPOSED: 3.0 %

PROPOSED MAJOR STRUCTURES

Phase I - SR40 - widen to 333' x 76', North & Southbound.
- Crooked River - widen to 400' x 76', North & Southbound.

Phase II - CR61(overpass) - widen to 326' x 61'.

PROPOSED RIGHT OF WAY

Phase I - none required - mainline
Phase II - none required

TYPE OF ACCESS CONTROL: LIMITED ACCESS

COORDINATION

CONCEPT TEAM MEETING DATE: FEB 4, 1993

LOCATION INSPECTION DATE: NONE

PERMITS REQUIRED (4f, COE, 404, etc.): 404, COAST GUARD

LEVEL OF PUBLIC INVOLVEMENT: NONE

TIME SAVING PROCEDURES APPROPRIATE: YES

OTHER PROJECT IN THE AREA:

STP-141-1(12) PI NO. 532480
STP-141-1(9) PI NO. 522080,
BRF-009-1(8), PI NO. 522690,
NH-IM-95-1(115), (116), (130), (131), - PI NOS.
511075, 511080, 511072, 511081 RESPECTIVELY.

MISCELLANEOUS

TRAFFIC CONTROL DURING CONSTRUCTION: Project to be built under traffic
(2 lanes, North & Southbound)

LEVEL OF ENVIRONMENTAL ANALYSIS: Categorical Exclusion

DESIGN EXCEPTIONS REQUIRED:

	YES	NO	UNDETERMINED
SUBST HORIZ ALIGNMENT	()	(X)	()
SUBST ROADWAY WIDTH	()	(X)	()
SUBST SHOULDER WIDTH	()	(X)	()
SUBST VERT GRADES	()	(X)	()
SUBST CROSS SLOPES	()	(X)	()
SUBST STOPPING SIGHT DIST	(X)	()	()
SUBST SUPERELEV RATES	()	(X)	()
SUBST HORIZ CLEARANCE	()	(X)	()
SUBST SPEED DESIGN	()	(X)	()
SUBST VERTICAL CLEARANCE	()	(X)	()
SUBST BRIDGE WIDTH	()	(X)	()
SUBST BR STRUCT CAPACITY	()	(X)	()

* SEE THE COMMENT SECTION FOR A BRIEF EXPLANATION OF ANY
DESIGN VARIATIONS ABOVE.

UNDERGROUND STORAGE TANKS: NONE

HAZARDOUS WASTE SITES: NONE

ALTERNATIVES CONSIDERED

1. No build.
2. The alternate for building Phase I and Phase II at the same time was considered and discounted because of anticipated delay for engineering and environmental considerations associated with Phase II. There exists an immediate need for some relief for the traffic congestion on I-95 at the present.
3. The alternate of building a 40 ft. depressed median for the entire length of the project by adding a 12' lane inside and a 12' lane outside was considered. It was discounted because of drainage concerns (shallow ditch, flat grades).

COMMENTS

1. After corresponding with the Florida DOT regarding their future plans for the widening of I-95, there was mutual agreement to widen the St. Mary's bridge to only 3 lanes in each direction. Hence, the GaDOT has elected to only construct a 6-lane rural interstate from the end of the St Marys bridges northward to the CR61 interchange. The ultimate 4th lanes will be introduced as an I-95 southbound exit-only and an I-95 northbound free-flowing entrance ramp at CR61.
2. A design exception will be required for the substandard stopping sight distance. I-95 at SR40 has minimum and desirable speed designs of 68 mph and 58 mph, respectively. This exception is recommended because the cost to correct the vertical alignment to meet the required stopping sight distance would not be justified.
3. The existing sub-standard superelevation will be corrected with leveling.
4. An access road from Georgia's Welcome Center to St. Marys road will be constructed during Phase I. Right of Way will be required.
5. Based on projected traffic counts and capacity, signals and lane reconfigurations may be required as follows:

<u>INTERSECTION</u> (crossroad & ramps)	<u>SIGNAL</u>	<u>COMMENT</u>
1. ST. Marys, NB Off & On	Required	No lane reconfiguration
2. ST. Marys, SB Off & On	Required	No lane reconfiguration
3. SR40, NB Off & On	Existing	Minor lane reassignments
4. SR40, SB Off & On	Required	District has developed plans to upgrade this intersection. Coordination should take place

All other intersections meet an unsignalized LOS "C" (construction year 1998) except for the I-95 SB Off & On ramps at Harrietts Bluff. The LOS is "E" and "C" in the AM and PM, respectively. However, signalization is not recommended at this time.

6. Crown Crossover - In the 52' median section, during Phase I, traffic occupies the three inside lanes. In the split median section, during Phase I, traffic occupies the three outside lanes. The roadway transitions from the 52' median to the split median in a horizontal curve. This super-elevated curve will allow traffic to be shifted while avoiding any crown-crossover. When the roadway transitions from the split median back to the 52' median, the crown will be crossed by traffic traveling in the inside lane. When Phase II is built, all crown-crossover will be eliminated.

**** RECOMMENDATION ****

It is recommended that the 52' median be approved based on the increased recovery area (38 ft) for vehicles traveling in the direction not protected by shoulder mounted guardrail and that the 40' median section based on the necessity to properly tie in to the St. Marys river bridges and future widening of I-95 in Florida.

ESTIMATED COST

	PHASE I	PHASE II	PHASE I	PHASE II
CONSTRUCTION: \$	22,334,598	3,488,100	RIGHT-OF-WAY: \$ LGPA	0
E & C (10) : \$	2,233,460	348,800	ACQUIRED BY: N/A	N/A
INFLATION : \$	1,228,403	1,060,067	UTILITIES: 150,000	-

	PHASE I	PHASE II
TOTAL CONSTRUCTION COST: \$	25,946,461	\$ 4,896,978

ATTACHMENTS: COST ESTIMATE, TYPICAL SECTION, Attachment A, CONCEPT MEETING MINUTES, and PREPROGRAMMING AUTHORIZATION.

PHASE I

PRELIMINARY COST ESTIMATE

PROJECT NUMBER: NH-IM-95-1(114)

COUNTY: CAMDEN

DATE: DEC 1, 1993

ESTIMATED LETTING DATE: JULY 1994

PREPARED BY: WAYNE G. MOTE, JR. PROJECT LENGTH (MILES): 7.38

() PROGRAMMING PROCESS () CONCEPT DEVELOPMENT (X) DURING PROJ DEV.

PROJECT COST

A. RIGHT-OF-WAY:	PHASE I	PHASE II
1. PROPERTY (land & easement)_____ \$ (see concept minutes)	N/A	N/A
2. DISPLACEMENTS: Res.0 Bus.0 M.H.0 \$	N/A	N/A
3. OTHER COST (adm./court, inflation)_____ \$	N/A	N/A
SUBTOTAL: A \$	N/A	N/A
B. REIMBURSABLE UTILITIES:		
1. RAILROAD_____ \$	-	-
2. TRANSMISSION LINES_____ \$	100,000	-
3. SERVICES_____ \$	50,000	-
SUBTOTAL: B \$	150,000	-

C. CONSTRUCTION:

PHASE I PHASE II

1. MAJOR STRUCTURES:

a. BRIDGES - SR40 - MAINLINE	\$	970,000	-
	\$	970,000	-
- CROOKED RIVER - MAINLINE	\$	1,100,000	-
		1,100,000	-
- CR61 - OVERPASS		-	250,000
b. OVERPASSES (JACKING)			
- COLERAIN	\$	150,000	-
- HARRIETT'S BLUFF	\$	150,000	-
SUBTOTAL:C-1	\$	4,400,000	250,000

2. GRADING AND DRAINAGE:

a. EARTHWORK			
-uncl exc. 25,000 cy x \$2.50	\$	62,500	-
50,000 cy x "		-	125,000
b. borrow 456,232 cy x \$5.00	\$	2,281,160	-
c. drainage			
- inside -	\$	672,000	-
- outside -		225,000	-
SUBTOTAL:C-2	\$	3,240,660	125,000

3. BASE AND PAVING:

a. GRADED AGGREGATE BASE			
PHASE I - 171,717T x 13.16	\$	2,259,796	-
PHASE II - 34,311T x "		-	451,533
b. ASPHALT PAVING - PHASE I			
- .75" D - 6,467T x 34.50	\$	223,112	-
- 1.5" FINE SMA 26,436T x 44.90	\$	1,186,976	-
- 2" B - 62,351T x 37.54	\$	2,340,657	-
- BASE - 37,233T x 39.00	\$	1,452,087	-
- TACK - 34,000G x .67	\$	22,780	-
- 1.5" E (SHLDR) 7,350T x 44.90	\$	330,015	-
c. OVERLAY - PHASE I			
- .75" D - 2,091T x 34.50	\$	72,140	-
- 1.5" FINE SMA - 8,812T x 44.90	\$	395,659	-
- 2" B - 17,877T x 37.54	\$	671,102	-
- TACK - 21,821G x .67	\$	14,620	-
d. ASPHALT PAVING - PHASE II			
- .75" D - 2,923T x 34.50	\$	-	100,844
- 1.5" FINE SMA 8,812T x 44.90	\$	-	395,659
- 2" B - 11,749T x 37.54	\$	-	441,058
- TACK - 4,012G x .67	\$	-	2,688
e. OVERLAY - PHASE II			
- .75" D - 2,554T x 34.50	\$	-	88,113
- TACK - 3,637G x .67	\$	-	2,437

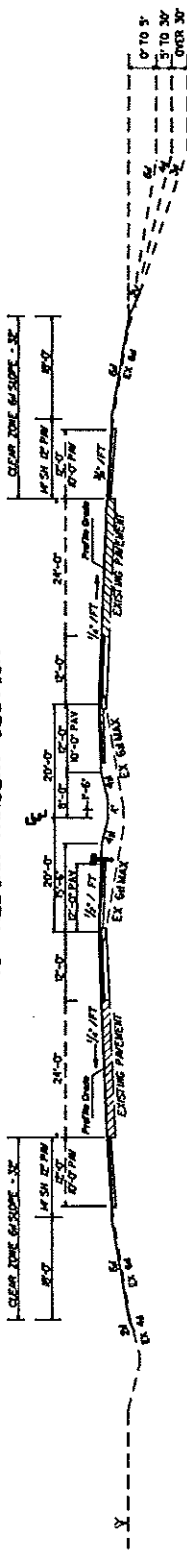
		PHASE I	PHASE II
f. ASPHALT PAVING - RAMPS			
- .75" D -	710T x 34.50	\$ 24,495	-
- 1.5" E	2,136T x 44.90	\$ 95,908	-
- 2" B -	2,848T x 37.54	\$ 112,611	-
- BASE -	4,272T x 39.00	\$ 166,608	-
- GAB -	16,632T x 13.16	\$ 218,878	-
- TACK -	3,898G x .67	\$ 2,612	-
g. ASPHALT OVERLAY - RAMPS			
- .75" D -	434T x 34.50	\$ 14,973	-
- 1.5" FINE SMA	1,329T x 44.90	\$ 59,673	-
- 2" B -	1,771T x 37.54	\$ 66,484	-
- TACK -	1,192G x .67	\$ 799	-
	SUBTOTAL:C-3	\$ 9,731,985	1,482,332
4. LUMP ITEMS:			
a. TRAFFIC CONTROL		\$ 500,000	200,000
TEMP. BARRIER FOR BRIDGES			
- 1550' x \$22.00		\$ 34,100	-
- 400' x \$22.00		-	8,800
b. CLEARING AND GRUBBING 363 AC @ \$3231		\$ 1,172,853	1,172,853
c. GRASSING 82 AC x 1000		\$ 82,000	-
13 AC x "		-	13,000
d. EROSION CONTROL		\$ 200,000	100,000
e. DETOURS		\$ -	-
	SUBTOTAL:C-4	\$ 1,988,953	1,494,653
5. MISCELLANEOUS:			
a. LIGHTING		\$ 0	0
b. SIGNING - STRIPING - SIGNAL		\$ 1,867,500	112,000
c. GUARDRAIL 1,750LF @ 13.78		\$ 344,500	24,115
d. OTHER - APPROACH WORK NEEDED FOR BRIDGES TO BE JACKED.		\$ 200,000	-
- SIGNALIZATION 4 @ 100,000 (see comments)		400,000	-
	SUBTOTAL:C-5	\$ 2,812,000	136,115
6. SPECIAL FEATURES			
ACCESS ROAD FROM WELCOME STATION TO ST. MARYS			
	SUBTOTAL:C-6	\$ 121,000	0

PHASE I
ESTIMATE SUMMARY

A. RIGHT-OF-WAY	\$	LGPA
B. REIMBURSABLE UTILITIES	\$	150,000
C. CONSTRUCTION	PHASE I	PHASE II
1. MAJOR STRUCTURES	\$ 4,440,000	250,000
2. GRADING AND DRAINAGE	\$ 3,240,660	125,000
3. BASE AND PAVING	\$ 9,731,985	1,482,332
4. LUMP ITEMS	\$ 1,988,953	1,494,653
5. MISCELLANEOUS	\$ 2,812,000	136,115
6. SPECIAL FEATURES	\$ 121,000	0
 SUBTOTAL CONSTRUCTION COST .	 \$ 22,334,598	 3,488,100
E. & C. (10%)	\$ 2,233,460	348,810
INFLATION (5% PER YEAR, 1994)	\$ 1,228,403	
(5% PER YEAR, 1998)		1,060,067
 TOTAL CONSTRUCTION COST	 \$ 25,946,461	 4,896,978
	<u>PHASE I</u>	<u>PHASE II</u>
 GRAND TOTAL PROJECT COST .	 \$ 25,415,981	 4,896,071

DATE	PROJECT NUMBER	DATE
04	NR-14-05-1(114)	

40' MEDIAN TANGENT SECTION



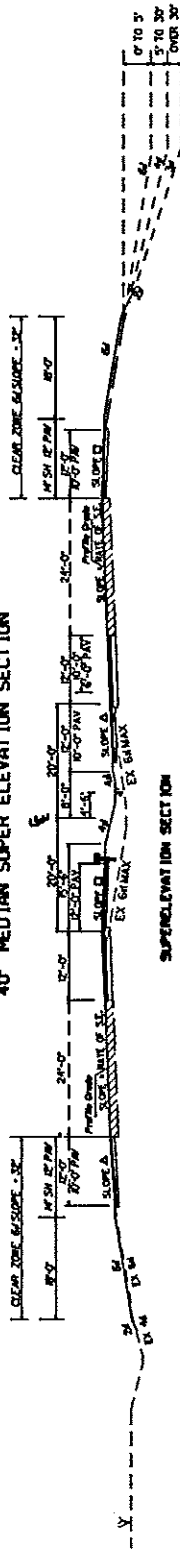
TANGENT SECTION ROADWAY IN GEORGIA BETWEEN NORTH END OF BRIDGES AND CR61

APPLIES TO STA. 666+33.01 TO STA. 54+30.51

NOTE: ROADWAY TYPICAL WILL TRANSITION TO BRIDGE TYPICAL AT LEAST 100 FT NORTH OF THE END OF BRIDGES.

BRIDGE TYPICAL: 3-12 FT LANES AND 14 FT OUTSIDE SHOULDER SLOPING 1/4:1 OUTSIDE, AND A 14 FT INSIDE SHOULDER SLOPING 1/4:1 INSIDE, EACH DIRECTION

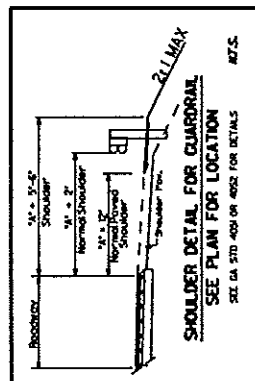
40' MEDIAN SUPER ELEVATION SECTION



SUPER ELEVATION SECTION

APPLIES TO STA. 54+30.51 TO STA. 77+52.94 (NB)

*TRANSITION 52' MEDIAN STA 77+52.94 (NB) TO SPLIT MEDIAN STA 110+00



SHOULDER DETAIL FOR GUARDRAIL
SEE PLAN FOR LOCATION

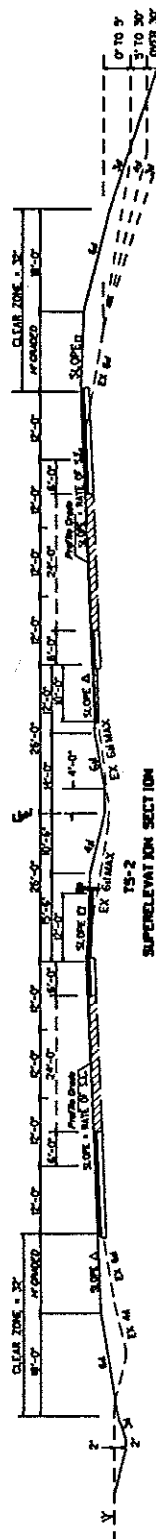
SEE LA STD 400 OR 402 FOR DETAILS

RTS

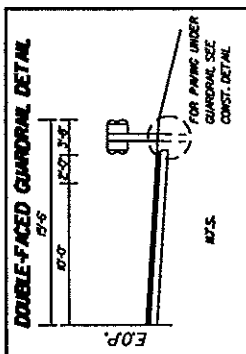
STATE	PROJECT NUMBER	DATE
GA.	NH-14-95-1(114)	

TYPICAL SECTIONS

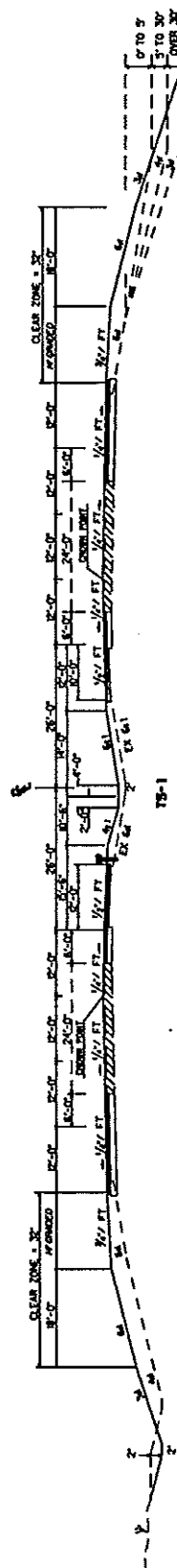
52' MED SUPER ELEVATION SECTION



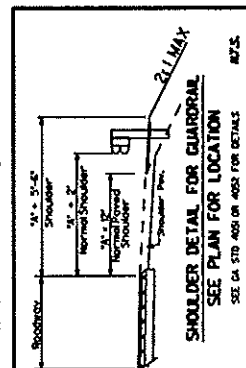
APPLIES TO STA. 398+08.84 TO STA. 410+30.41



52' MED TANGENT SECTION



APPLIES TO STA. 50+00 TO STA. 54+30.51
STA. 410+30.41 TO STA. 421+00
**STA. 311+50 TO STA. 398+08.84
EQUALITY STA. 672+59 = 50+00



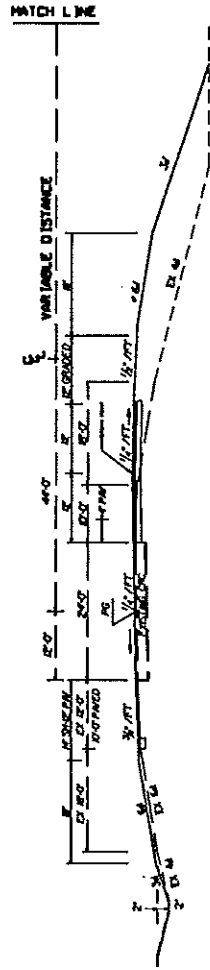
SHOULDER DETAIL FOR GUARDRAIL
SEE PLAN FOR LOCATION
SEE GA STD 405 OR 402 FOR DETAILS
M.T.S.

Δ SLOPE $\frac{3}{4}$ / 1'-0" OR RATE OF S.E. WHENEVER IS GREATER
Δ SLOPE $\frac{1}{2}$ / 1'-0" OR RATE OF S.E. WHENEVER IS GREATER
SLOPES AS FOLLOWS:
S.E. RATE OF 0.03' / FT. OR LESS USE $\frac{1}{2}$ IN 1'-0"
S.E. RATE OF 0.04' / FT. USE $\frac{3}{4}$ IN 1'-0"
S.E. RATE OF 0.05' / FT. USE $\frac{1}{2}$ IN 1'-0"
S.E. RATE OF 0.06' / FT. USE $\frac{3}{4}$ IN 1'-0"
S.E. RATE OF 0.07' / FT. USE 1'-0" / FT.
ALGEBRAIC DIFFERENCE IN PAVING AND SHOULDER
SLOPES NOT TO EXCEED 0.07' / FT.

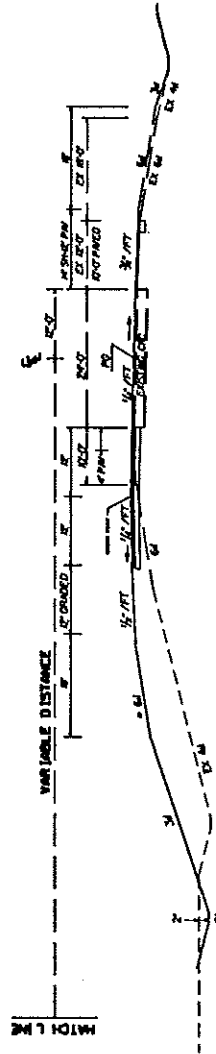
TYPICAL SECTION
PHASE I
SCALE= 1"=10'

PROJECT NUMBER	114
DATE	11/14/14
BY	
CHECKED	

SPLIT MEDIAN TANGENT SECTION



SBL



NBL

TANGENT SECTION

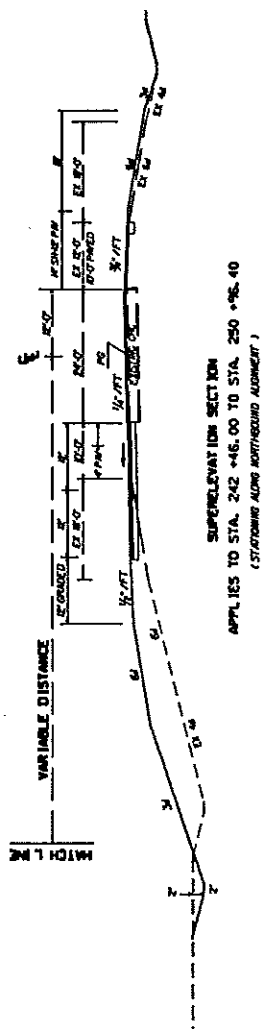
- APPLIES TO STA. 110+00 TO STA. 299+00 SBL
- APPLIES TO STA. 110+00 TO STA. 242+46.00 NBL
- APPLIES TO STA. 250+96.40 TO STA. 299+00 NBL

- TRANSITION 52' MEDIAN STA 77+52.99 NB TO SPLIT MEDIAN STA 110+00
- TRANSITION SPLIT MEDIAN SECTION STA 299+00 TO 52' MEDIAN SECTION STA 311+50 AND
- TRANSITION SPLIT MEDIAN DITCH STA 299+00 TO 52' MEDIAN DITCH STA 302+84.52
- EQUALITY 333+13.00 NB ALIGNMENT + 302+84.52 SB ALIGNMENT

TYPICAL SECTION
PHASE I
SCALE= 1" = 10'

STATE	PROPERTY NUMBER	UNIT	TOTAL SQUARE FOOTAGE
GA.	NH-14-95-11141	29	

**SPLIT MEDIAN
SUPERELEVATION SECTION
NORTHBOUND**

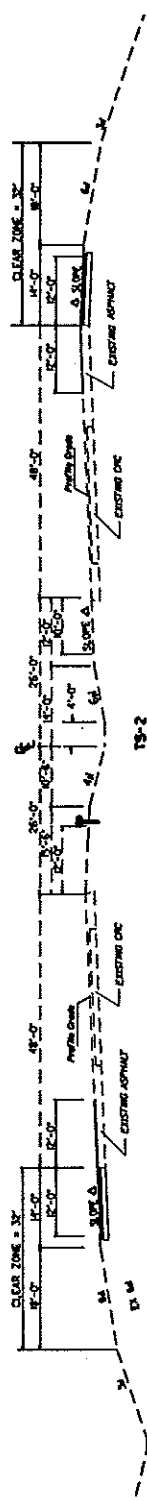


TYPICAL SECTION
PHASE I
SCALE= 1":10'

DATE	NOV 14 1985	BY	11130
SCALE	1" = 10'		

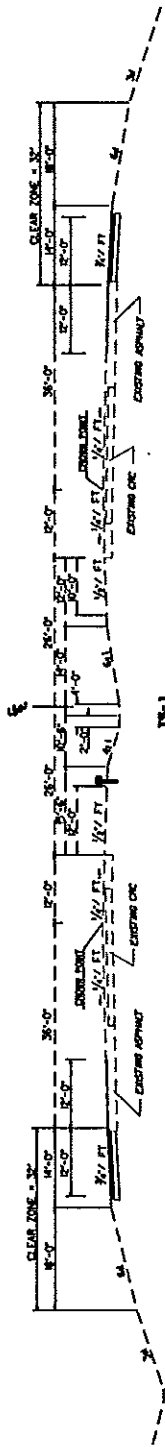
TYPICAL SECTIONS

52' MED SUPER ELEVATION SECTION



TS-2
SUPERELEVATION SECTION
APPLIES TO STA. 396+00.84 TO STA. 410+00.41

52' MED TANGENT SECTION



TS-1
TANGENT SECTION

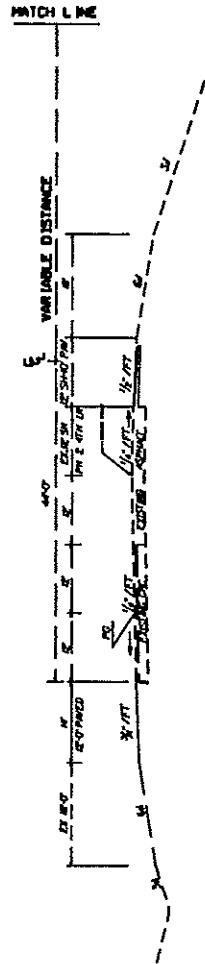
APPLIES TO STA. 410+00.41 TO STA. 421+00
**STA. 311+50 TO STA. 396+00.84
EQUALITY STA. 672+59 = 50+00

TYPICAL SECTION
PHASE II
SCALE= 1" : 10'

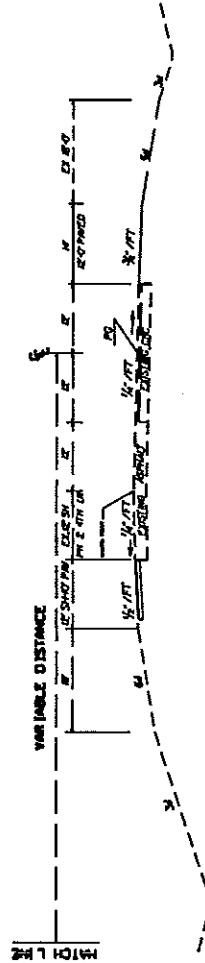
**TRANSITION SPLIT MEDIAN SECTION STA 299+00 TO 52' MEDIAN SECTION STA 311+50 AND
TRANSITION SPLIT MEDIAN DITCH STA 299+00 TO 52' MEDIAN DITCH STA 332+84.52
***TRANSITION 52' MEDIAN TO EXISTING TYPICAL IN 1250' (STA 421+00 TO 433+50)

STATE	PROPERTY NUMBER	ENTRY NO.	TOTAL
GA.	94-14-95-11130		

**SPLIT MEDIAN
TANGENT SECTION**



SBL



NBL

NOI 1725 INTERNAL

- | | | | | |
|-------------------|-----------|---------|-----------|-----|
| ..APPLIES TO STA. | 110+00 | TO STA. | 299+00 | 3BL |
| APPLIES TO STA. | 110+00 | TO STA. | 242+48.00 | NBL |
| ..APPLIES TO STA. | 250+96.40 | TO STA. | 299+00 | NBL |

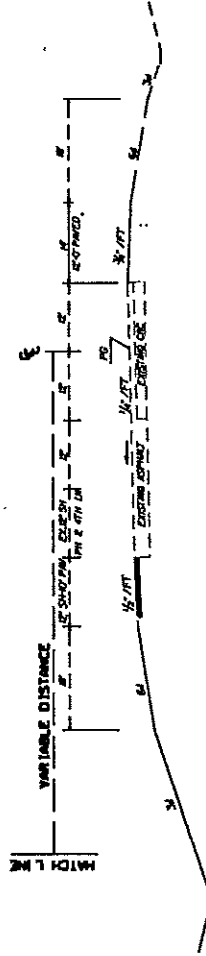
- *TRANSITION 52' MEDIAN STA 77+52.99(NB) TO SPLIT MEDIAN STA 121+41 - SEE DETAIL 3
 **TRANSITION SPLIT MEDIAN SECTION STA 299+00 TO 52' MEDIAN SECTION STA 311+50 AND
 TRANSITION SPLIT MEDIAN DITCH STA 299+00 TO 52' MEDIAN DITCH STA 332+84.52

EDUALITY 333.13.00 MS ALIDMENT = 332.04.52 58 ALIDMENT

TYPICAL SECTION
PHASE II
SCALE= 1":10'

STATE	PROJECT NUMBER	DATE
GA.	W-14-95-11130	11/13/95

SPLIT MEDIAN
SUPERELEVATION SECTION
NORTHBOUND



SUPERELEVATION SECTION
APPLIES TO STA. 242 +45.99 TO STA. 250 +96.39
(STATIONED ALONG NORTHBOUND ALIGNMENT)

TYPICAL SECTION
PHASE II
SCALE= 1"=10'

fourth lane in Phase II

Phase II roadway construction consists of Adding a 14-foot shoulder (12-foot paved) outside in each direction.

Phase I bridge construction includes widening the SR40 bridges to 4 lanes each (separated by barrier wall). There will be no bridge construction in Phase II.

Discussion was as follows:

The utilities representative said that there were about seven utilities involved, they need the footing sizes and elevations. There are a couple of gas line crossing but they are not a problem.

Camden County representatives said that the City of Kingsland wants to extend the service road all the way under the bridge and tie it in with the ramp intersection. They also said that the city would take care of the right-of-way. The District supports the idea. The county also wants some kind of access to the Welcome Center, maybe an access ramp from the Welcome Center to St. Mary's Road. There is also a possible backslope problem at the Welcome Center for Phase II.

The City brought up the construction of a new high school and sports complex East of I-95 at Colerain Road, increasing the need for signalization at the ramp intersection.

Floyd (FHWA) said he would check on the limits of access for interchanges. Phase I would probably require and EA because of the impacts. Phase II will require and EA.

The District wanted to know if the Crooked River bridge would be full width, and if the lighting at SR40 and the Welcome Center would be relocated. Frank asked if there would be a gap or not in the St. Mary's River Bridge.

Environmental said to set up a Public Hearing for Phase II, because of the possible archaeological and wetland impacts.

Planning said that the ramps are tight and if possible move them back to loosen the curves.

Traffic and Safety said by not changing the interchange you need to do research before guaranteeing signalization, so you need the accident data for intersections. We may want to add a lane to some the existing ramps.

Road Design suggested putting both new lanes in the median, where the median is wide enough to accommodate.

Someone asked if the estimate included mitigating wetlands,

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE NH-IM-95-1(114)

CAMDEN COUNTY

I-95/State Route 405 widening and reconstruction

P.I. No. 511070

OFFICE Road Design

DATE Feb. 8, 1993

FROM Roland Hinners, P.E., State Road & Airport Design
Engineer

TO See Distribution

SUBJECT Minutes of Concept Design Meeting

The concept team meeting was held February 4, 1993 at 1:00 P.M. in the Road Design Conference Room. Persons present were: John Bishop, Jim Kennerly, Floyd Moore Jim Graybeal, Ron Braziel, Wayne Mote, Jim Fuerst, Angela Skinner, Ray Vender, Terry Rogers, Del Clippard, Melvin Collins, Holmes Clements, John Lord, Reba Scott, Dania Aponte, James Magnus, Fred Wilson, Bascombe Hughes, Todd Long, Frank Sweat, Franklin Griffis, Harold Joyner, Bob Gardner, Marie Piper, Jim Tarter, Robbie Cheer and Jerry Brandon.

Project NH-IM-95-1(124) was discussed.

Jim Graybeal opened the meeting by describing the project. The walk through was conducted by Wayne Mote.

The project NH-IM-95-1(114) in Camden County consists of the widening and reconstruction of I-95 from the end of St. Mary's River bridge north to Harrietts Bluff overpass. There are two mainline bridges on this project. The widening and reconstruction is proposed to be completed in two phases. Phase I is to be completed as soon as possible. Phase II should immediately follow Phase I. Phase II contract will be NH-IM-95-1(130).

Phase I roadway construction includes widening the 4-lane interstate highway into 6-lanes, adding a 12-foot lane inside each direction, a 12-foot shoulder (10-foot paved) Northbound, a 14.5-foot shoulder (12-foot paved) Southbound, a full depth shoulder to the outside to provide for the

it does not.

DISTRIBUTION

John Lively
Wayne Hutto
Ron Braziel
FHWA/Floyd Moore
Ronald "Bo" Davis/Frank Sweat/Franklin Griffis
Bob Humphrey/James Magnus
David Studstill/Dania Aponte
Herman Griffin/Reba Scott
Robert Bowling
Paul Liles/Holmes Clements
Don Welch/Del Clippard
Ronald Collins/Melvin Collins
Bacombe Hughes
Bob Gardner/Marie Piper
Jim Tarter Robbie Cheer
Jerry Brandon
Fred Wilson/Todd Long

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

COPY

INTERDEPARTMENT CORRESPONDENCE

FILE I-95 Corridor OFFICE Atlanta, GA.
I-95 Widening and Reconstruction
Roland Hinners DATE July 6, 1993
FROM Roland W. Hinners, P.E., State Road & Airport Design Engineer *JAK*
TO SEE DISTRIBUTION BELOW
SUBJECT MINUTES OF I-95 CORRIDOR MEETING WITH FHWA AND GDOT MANAGEMENT

The I-95 corridor meeting was held June 9, 1993 at 9:30 a.m. in the Road Design Conference Room. Persons present were: Jim Condron, Frank Julian, Floyd Moore, Lee Reynolds, all from FHWA and Charles Lewis, Frank Danchetz, Paul Mullins, Tom Turner, John Lively, Bobby Mustin, Wouter Gulden, Paul Liles, Holmes Clements, Roland Hinners, Jim Kennerly, Milton White, Jim Graybeal, Wayne Mote, Mike Reynolds, Kevin Hosey, and Jim Fuerst all from GDOT.

The meeting was opened by Jim Kennerly who stated that there were four different mainline typical sections considered for the I-95 corridor as follows: 40' median with Guardrail, Concrete Median Barrier, 52' median with Guardrail and 52' median without Guardrail. Jim Kennerly then turned the meeting over to Jim Condron for his comments on the different typical alternates.

Jim Condron stated that their two main concerns are safety and drainage. He said that he would not recommend narrow medians for rural Interstates in any cases and that I-95 is somewhat different from other projects with a 40' median. He also stated that he is concerned with the drainage aspects of the 40' median. He also said that they had problems with the Truman Parkway with drainage but it had a narrower median. He wanted to explore the possibility of widening all on the outside and retaining the 64' median or widening with one lane in one direction in the median and the other lane on the outside in the other direction.

Frank Danchetz was concerned that Jim Condron was talking about the entire corridor but Mr. Lewis wanted to discuss those projects north of I-16 and the projects south of U.S. 17. Frank asked if authorization had been given for NH-IM-95-1(108). John Lively said that unit 108 had been approved by FHWA. Jim Condron said that he was not aware that unit 108 had been approved but John Lively assured him that we have a signed copy of the concept from FHWA.

I-95 CORRIDOR
I-95 WIDENING AND RECONSTRUCTION
PAGE 2.

The meeting was then turned back over to Jim Kennerly. Jim stated that the GDOT's biggest concerns were safety drainage and wetland impacts. Jim talked about the median barrier alternate and said the GDOT is reluctant to go with it because of the drainage problems that would be expected because of the extremely flat grades that are on I-95.

Milton White stated that in order to drain the concrete median barrier alternate the shoulder would have to be rolled in order to give it a slope. This would be very unsafe since the shoulder would be peaked every 130 feet giving you approximately 260 feet between low point drop inlets. This would also be unsightly and the driver expectancy would be enhanced to provide a shoulder with a constant slope. Milton also stated that cross drain pipes would need to be jacked and bored at every other drainage structure to be able to adequately handle the runoff. Roland Hinnners stated that the median barrier would involve sweeping and that the drainage structures and pipes may need to be cleaned approximately four times a year. He thought that this could be as risky as mowing the 13.5' strip of grass in the 40' median. Milton White also stated that the median barrier alternate would not be able to drain totally to the outside because of the possibility of hydroplaning.

Jim then talked about the 40 ft. median with Guardrail. He stated that with the 40 ft. median alternate the roadway would basically stay on the existing footprint which would minimize some of the wetland impacts. Jim also stated that the drainage provided should function adequately because we could use the existing side drains by extending them and placing a drop inlet between every existing drop inlet in the median. This alternate would have a shallow ditch of 1.13' in the median and it would carry the runoff. The question of maintaining a 13.5' strip of grass was brought up previously by District 5. They questioned the safety of mowing such a narrow strip of grass in the median on I-95. Jim then stated that perhaps we should consider other alternates.

The 52' median was subsequently considered. This median would almost double the median ditch depth to 2.2' and would allow for more storage of runoff in the median. There would be adequate lateral clearance under the overhead bridges to handle the future (phase 2) four lane section. The downside of this typical section is that in the existing CRC sections, there would be a reflective crack between the existing CRC and the new asphalt pavement in the center of the inside lanes and the center of the outside under Phase 1.

GEORGIA DEPARTMENT OF TRANSPORTATION
WORK AUTHORIZATION

REF: A. State Transportation Improvement Program P.I.# 511070
B. Federal Aid Item # 020614

* CHARACTER OF PROPOSED WORK AND REMARKS/STIPULATIONS
*
* PRELIMINARY ENGINEERING AND ASSOCIATED INCIDENTALS FOR THE
* FUTURE WIDENING
* 039-00405D-00665N 039-0032-0
* 039-00405D-00666N 039-0033-0
* ROW APPRAISALS AND ASSOCIATED INCIDENTALS. FA PARTICIPATION
* WILL BE LIMITED TO THE AREAS INCORPORATED INTO THE FINAL ROW
* FOR PROJECT.
*

SYMBOL NO SEC UNIT COUNTY CD FY PHASE
NH-95-1 (114) CAMDEN 1 1993 P/E

STATE ROUTE: SR 405 MILEAGE: 7.22
I-95 FM FLA LINE TO HARRIETS BLUFF RD/INCL ER @ CROOKED RVR
REQUEST: Federal State Other Fund/Appn Code
\$100,000 \$80,000 \$20,000 -0- NH(315)

*
*
* Items marked below with [XX] are applicable to this phase
* of work.
*
*
*

FHWA involvement: [X] Full [] Exempt [] CA

* [] Urban Transportation planning actions per 23 CFR 450.,
* Sub B, Annual Element/TIP Identifying #
* [X] Categorical Exclusion per 23 CFR 771.
*

Authorization requested for amount of federal funds shown above.

Signed: [Signature] Date: 1-8-93
State Transportation Programming Engineer

* [] Work to be accomplished by: _____
*

Authorization granted to proceed.

Signed: [Signature] Date: 2-4-93
For the Division Administrator, FHWA

* [X] ADJUSTMENT OF UTILITIES.
*
*

Work is authorized and is to proceed as scheduled. The
Director of Administration is requested to open the necessary
accounts.

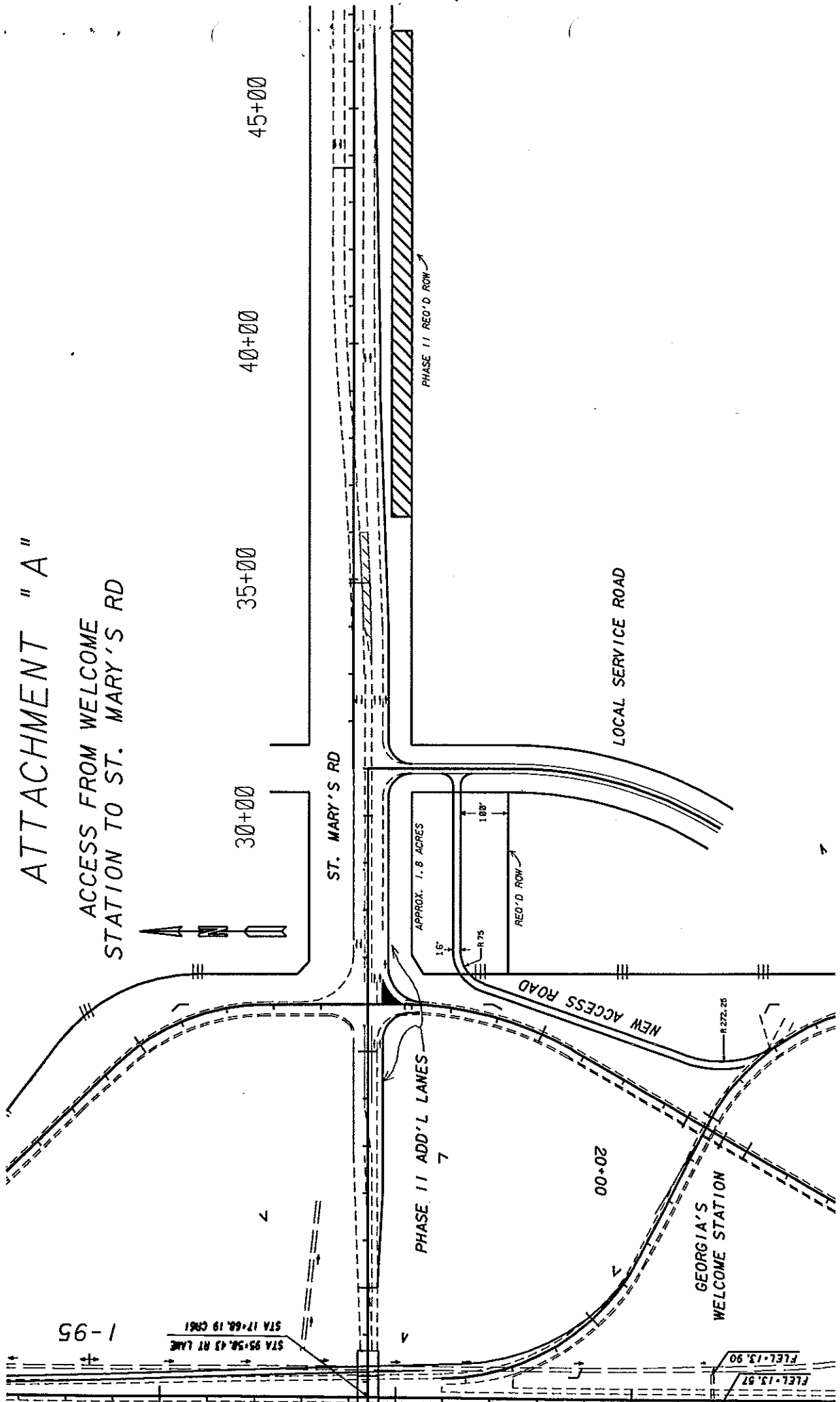
* [] FHWA participation limited to the areas incorporated into
* the final project R-O-W.
*
*
*
*
*
*

Signed: [Signature] Date: 2/4/93
Commissioner, Ga. DOT

REVIEWED AND RECORDED BY THE OFFICE OF PROGRAMMING DATE: <u>1-8-93</u> BY: <u>[Signature]</u>

ATTACHMENT "A"

ACCESS FROM WELCOME
STATION TO ST. MARY'S RD



DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

RECEIVED
JUN 09 1994
PRECONSTRUCTION

INTERDEPARTMENT CORRESPONDENCE

FILE NH-IM-95-1(114) Phase I Camden County OFFICE Traffic Operations
NH-IM-95-1(130) Phase II Atlanta, Georgia
P.I. Nos. 511070 & ~~522072~~ DATE June 7, 1994
511072

FROM *[Signature]* Marion G. Waters, III, P.E., State Traffic Operations Engineer

TO Bob Mustin, P.E., Project Review Engineer

SUBJECT Project Concept Report

We have reviewed the concept report on the above project for widening and reconstruction of 7.382 miles of I-95 from the end of St. Mary's River Bridge to Harriett's Bluff Overpass.

Phase I construction will widen the I-95 roadway from two lanes in each direction to three lanes. The bridge over SR 40 will be widened to 333 ft. X 76 ft., northbound and southbound. The bridge over Crooked Creek will be widened to 400 ft. X 76 ft. northbound & southbound.

Phase II construction will widen the I-95 roadway from three lanes in each direction to four lanes from CR 61 to Harriett's Bluff Road. The CR 61 Overpass will be widened to 326 ft. X 61 ft.

The concept furnishes an improvement in safety and operational capacity. Therefore, approval is recommended.

MGW:LEO

Attachment (signature page)

cc: James A. Kennerly, State Road & Airport Design Engineer
Craig Brack, District Engineer - Jesup
Wayne Hutto, Asst. Director Of Preconstruction
General Files

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
OFFICE OF ROAD AND AIRPORT DESIGN

PROJECT CONCEPT REPORT

NH-IM-95-1(114)
NH-IM-95-1(130)
CAMDEN COUNTY

FEDERAL ROUTE NO: I-95
STATE ROUTE NO: 405
GADOT P.I. NO: 511070

Date of Report: MAY-31-1994

RECOMMENDATION FOR APPROVAL

DATE _____ State Road & Airport Design Engineer

DATE _____ State Environmental Engineer

DATE 6/7/94 Maria Delatorre
State Traffic Operations Engineer

DATE _____ District Engineer

DATE _____ State Bridge Engineer

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
OFFICE OF ROAD AND AIRPORT DESIGN

PROJECT CONCEPT REPORT

NH-IM-95-1(114)
NH-IM-95-1(130)
CAMDEN COUNTY

FEDERAL ROUTE NO: I-95
STATE ROUTE NO: 405
GADOT P.I. NO: 511070

Date of Report: MAY-31-1994

RECOMMENDATION FOR APPROVAL

DATE _____ State Road & Airport Design Engineer

DATE _____ State Environmental Engineer

DATE 6/7/94 Maria D. Dutton
State Traffic Operations Engineer

DATE _____ District Engineer

DATE _____ State Bridge Engineer